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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,349	10/28/2003	Wolfgang Lubcke	9090-0158	2564
23364	7590	11/19/2004	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			KRAMSKAYA, MARINA	
			ART UNIT	PAPER NUMBER
			2858	

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/694,349

Applicant(s)

LUBCKE ET AL.

Examiner

Marina Kramskaya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/28/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/677,725.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “adapter circuit” of Claims 10-17 and the “ports” of Claim 18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: “2” in FIG. 1, “4” in FIG. 2, and “58<sub>1</sub>” through “58<sub>10</sub>” (58.sub.1 through 58.sub.10) in FIG. 3.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: “1.” through “10.” on pages 12 and 13 of the specification. Based on the drawings, the pairs of terminals “1.” through “10.” appear to be “58<sub>1</sub>” through “58<sub>10</sub>”.

The drawings are objected to because reference numerals “61<sub>1</sub>” and “61<sub>2</sub>” are disclosed to be the measuring instruments; however, the lines point to two different

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blocks in the diagram of FIG. 3, wherein "61<sub>1</sub>" is the lower block and "61<sub>2</sub>" is the upper block.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

#### ***Claim Objections***

5. Claim 11 is objected to because of the following informalities: it is unclear if the "two ports" in line 1 of the Claim 11 are the same as the "two ports" in line 1 of Claim 10 or if they are an additional set of "two ports". Appropriate correction is required.

***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1, & 3-7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over U.S. Patent No. 6,684,340. Although the conflicting claims are not identical, they are not patentably distinct from each other.

As per Claim 1, Claims 1 & 2 of U.S. Patent No. 6,684,340 covers the scope of applicant's claim, since it meets the following components and function claimed:

- a measuring instrument,
- a higher-order unit,
- electric connection by a first pair of lines and a second pair of lines,
- a signal current flows via said first pair of lines,
- a supply current flows via said second pair of lines,
- signal current representing an instantaneous measured value,
- said supply current and a portion of the signal current supply the measuring instrument.

As per Claims 3-5, Claim 11 of U.S. Patent No. 6,684,340 covers the scope of applicant's Claims 3-5, since it meets the following components and function claimed:

- the higher-order unit comprises at least two transmitter feed units, each of said transmitter feed units being operable to supply a conventional two-wire measuring instrument with electrical power (column 10, lines 14-15, a two-terminal unit is operable to supply a two-wire instrument);
- each of said first and said second pairs of lines are connected respectively, with one of said at least two transmitter feed units;
- each of said at least two transmitter feed units are connected with one of said first and said second pairs of lines, respectively.

As per Claim 6, Claim 6 of U.S. Patent No. 6,684,340 covers the scope of applicant's Claim 6, since it meets the following components and function claimed:

- each of first and second pairs of lines is connected to a current/voltage limiter.

As per Claim 7, Claim 8 of U.S. Patent No. 6,684,340 covers the scope of applicant's Claim 7, since it meets the following components and function claimed:

- the first and said second pairs of lines are galvanically isolated from each other.

8. Claims 2, 8, & 9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over U.S. Patent No. 6,684,340, in view of

Wetzel et al., US 5,742,225. Although the conflicting claims are not identical, they are not patentably distinct from each other.

As per Claim 2, Claims 1 & 2 of U.S. Patent No. 6,684,340, in view of Wetzel et al., cover the scope of applicant's Claim 2, since the combined references meet the components and function claimed:

Claims 1 & 2 of U.S. Patent No. 6,684,340, cover the scope of applicant's Claim 1, as applied above.

The claims of U.S. Patent No. 6,684,340 do not claim a variable supply current in accordance with the current power demand of the measuring instrument.

Wetzel discloses a measuring arrangement where the supply current is varied (column 2, lines 54-59).

Therefore, it would have been obvious to a person of ordinary skill in the art to include a variable supply current, as taught by Wetzel, in order to accommodate the need of the load (see FIG. 2)

As per Claim 8, Claims 1 & 2 of U.S. Patent No. 6,684,340, in view of Wetzel et al., US 5,742,225, cover the scope of applicant's Claim 8, since the combined references meet the following components and function claimed:

Claims 1 & 2 of U.S. Patent No. 6,684,340, cover the scope of applicant's Claim 1, as applied above.

The claims of U.S. Patent No. 6,684,340 do not claim a sensor for detecting at least one physical variable.



Wetzel discloses a sensor **10** for detection of at least one physical variable (column 2, lines 62-64).

Therefore, it would have been obvious to a person of ordinary skill in the art to include a sensor detection of at least one physical variable, as taught by Wetzel, because the measured current value in Claim 1, must represent a physical variable.

As per Claim 9, Claim 12 of U.S. Patent No. 6,684,340 covers the scope of applicant's Claim 9, since it meets the following components and function claimed:

- the higher-order unit comprises a bus line for transmitting measured values representing at least one physical variable.

### ***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 10-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The applicant's "adapter circuit system," Claims 10-17, is not disclosed in the specification or the drawings of application 10/943,349. The "evaluation circuit," "cables," or "ports" of Claim 18 are not disclosed in the specification or the drawings of application 10/943,349.

The parent application 09/677,725, does not disclose the "adapter circuit system" or the "evaluation circuit." As application 10/943,349 is a Continuation, no new matter may be introduced.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Venditti, US 5,248,933.

Venditti discloses a measuring instrument **20** and a higher-order unit **18**, said measuring instrument and said higher-order unit being electrically connected with each other by a first pair of lines (**signal 1, signal 2**), and a second pair of lines (**power +, power -**), (FIG. 10),

wherein during operation a signal current flows via said first pair of lines (**signal 1, signal 2**) and a supply current flows via said second pair of lines (**power +, power -**), said signal current representing an instantaneous measured value (column 6, line 4),

and said supply current and at least a portion of the signal current supply said measuring instrument (column 6, lines 17-20).

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Zyl, US 5,416,723, discloses a measuring device with two terminals for the supply and signal currents, as well as the device functioning in intrinsically safe mode and out. Bramwell, US 5,721,688, discloses a measuring device for measuring at least one physical variable and converting it to an electrical characteristic.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Kramskaya whose telephone number is (571)272-2146. The examiner can normally be reached on M-F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on (571)272-2233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Kramskaya  
Examiner  
Art Unit 2858

*M. Kramskaya*

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